

REMARKS/ARGUMENTS

This letter is responsive to the Office Action mailed on May 18, 2007. Claims 1 to 20 are currently pending in the application.

Claims 1, 5 to 11 and 15 to 20 rejected under 35 U.S.C. §102(b)

The Examiner has rejected claims 1, 5 to 11, and 15 to 20 under 35 U.S.C. §102(b) as being anticipated by Heckerman et al. (U.S. Patent No. 6,260,011). Specifically, the Examiner states that, as to claim 1, Heckerman et al. teaches a method for providing a synchronized audio file and its textual equivalent, where the text can be obtained from the audio file.

The Applicant submits that certain elements of the system claimed in claim 1 are not shown nor suggested by Heckerman et al.

Claim 1 of the present invention defines a system that includes a silence detection module, wherein silence and non-silence groups are identified using a threshold volume. The Examiner advises on page 3 of the Office Action that Heckerman et al. does not explicitly teach a silence detection module using a volume threshold. Further, the silence detection module of the system of claim 1 converts audio files into silence detected audio files, comprising alternating silence and non-silence groups. Non-silence groups can represent any type of silence that the silence detection module detects in the audio files.

In contrast, Heckerman et al. discloses a silence detector for detecting silence in an audio file, which, as disclosed, only detects silence that occurs at the ends of sentences and paragraphs (Fig.7; Col.3, lines 25-28; Col.11, lines 33-38). Relative to the silence detection module in claim 1, therefore, this definition of silence is much narrower. In particular, such a narrow definition of silence precludes the silence detector disclosed in Heckerman et al. from teaching conversion of audio files into silence detected audio

files, as in the silence detection module of claim 1, because the disclosed silence detector would be severely limited in terms of the number of silence groups it could detect.

Claim 1 also defines a system that uses a silence insertion module to synchronize the display of recognized text pieces for playback of associated audio pieces. Synchronization is achieved by correlating detected non-silence groups in the original audio file to detected non-silence groups in the aggregated audio file, determining the time-difference between equivalent non-silence groups, and then inserting silence into the audio pieces proportional to the determined time-differences.

Heckerman et al. discloses a method that includes means for inserting silence pointers into an original text file that point to locations in an original audio file, the effect of which is to synchronize the text and audio files at these points. However, this method determines the silence pointers by matching detected silence in a speech-recognized text file to punctuation in the original text file using bracketed textual comparison of the two files (Figs.6-7; Col.4, lines 14-20; Col.11, lines 39-45). Clearly, having the original text file available for comparison is integral to the synchronization means used in the method disclosed in Heckerman et al.

In contrast, the silence insertion module of claim 1 does not presume that an original text file will be available for comparison and, in fact, explicitly presumes the opposite. Accordingly, synchronization of text to audio by the silence insertion module of claim 1 could not practically be performed using the synchronization means disclosed in Heckerman et al. because the silence insertion module of claim 1 does not use an original text file. Heckerman et al., therefore, does not teach the synchronization means used by the silence insertion module of claim 1.

Moreover, the method disclosed in Heckerman et al. teaches synchronization of audio to text only at select points, such as the starts of paragraphs and/or sentences, by inserting pointers into the text file only at these select points (Figs.8-13; Col.3, lines 7-22; Col.11, lines 33-38). Specifically, Heckerman et al. does not show or suggest any

use for, or advantage to be had by, synchronizing every word in the text file to every corresponding word in the audio file. Heckerman et al. in fact explicitly notes to the contrary that accurately synchronizing the starting points of paragraphs and sentences is often more important than being able to synchronize individual words within sentences (Col. 2, lines 59-63).

In contrast, the silence insertion module of claim 1 synchronizes every word in the audio file to every corresponding word in the text file. As the synchronization means disclosed by Heckerman et al. only synchronizes text to audio at select points, Heckerman et al. does not teach the synchronization means used by the silence insertion module of claim 1.

Accordingly, the Applicant respectfully submits that the subject matter claimed in independent claims 1 and 11 is not anticipated in view of the Heckerman et al. reference. It is further submitted that claims 5 to 10 and claims 15 to 20, recite additional patentable features that are neither taught nor suggested by the Heckerman et al. reference. Withdrawal of the Examiner's rejection in respect of claims 1, 5 to 10, 11 and 15 to 20 is respectfully requested.

Claims 2 to 4 and 12 to 14 rejected under 35 U.S.C. §103(a)

The Examiner has rejected claims 2 to 4 and 12 to 14 under 35 U.S.C. §103(a) as being unpatentable over Heckerman et al. (US 6,260,011) and further in view of Flanagan et al. (U.S. Patent No. 4,449,190). Specifically, the Examiner states that, as to claims 2 to 4, Flanagan et al. teaches a silence detection module that uses volume thresholds that Heckerman et al. does not explicitly teach, but which nonetheless could obviously have been incorporated into Heckerman et al.

The Applicant submits that for the reasons discussed above in respect of claims 1 and 11 that the subject matter claimed in dependent claims 2 to 4 and 12 to 14, is not shown nor suggested by the Heckerman et al. or Flanagan et al. references alone or in

combination. Withdrawal of the Examiner's rejection in respect of claims 2 to 4 and 12 to 14 is respectfully requested.

In the alternative, the Applicant respectfully submits that the subject matter of claims 2 to 4 nonetheless are not disclosed in Heckerman et al. nor in Flanagan et al., either alone or in combination.

The system of claim 2 includes a silence detection module that further utilizes an adaptive sliding average window register to determine whether or not a detected non-silence group should be re-categorized as a silence group. Though Flanagan et al. teaches the use of volume thresholds, neither it nor Heckerman et al. explicitly teaches using an adaptive sliding average window register in the specific manner claimed in claim 2.

The system of claim 3 includes a silence detection module that converts audio files into silence detected audio files, wherein non-silence groups in those files are represented by an average volume. Though Flanagan et al. teaches the use of volume thresholds, neither it nor Heckerman et al. explicitly teaches representing non-silence groups within audio files by an average volume.

The system of claim 4 includes a silence detection module using volume thresholds, wherein the volume threshold is set to reflect the recording environment of the audio file. It has already been noted that Heckerman et al. does not explicitly teach volume thresholds and that Flanagan et al. does not explicitly teach configuring the thresholds. Flanagan et al. simply discloses one threshold to detect the start of silence and another to detect the end of silence. In contrast, the volume threshold of claim 4 is configurable to different recording environments. For example, good performance can be obtained if the volume threshold is set to detect about 100 silence groups per minute.

In view of the foregoing, the Applicant submits that neither Flanagan et al. nor Heckerman et al., either alone or in combination, teaches or suggests a silence detection module that is analogous to the silence detection module claimed in claims 2

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to 4. For this reason, the Applicant also respectfully submits that the subject matter of claims 2 to 4 is also not shown nor suggested by Heckerman et al. or Flanagan et al. either alone or in combination.

On the same basis, the Applicant also respectfully submits that the subject matter of corresponding method claims 12 to 14 are also not shown nor suggested by Heckerman et al. or Flanagan et al. either alone or in combination. Withdrawal of the Examiner's rejection in respect of claims 2 to 4 and 12 to 14 is respectfully requested.

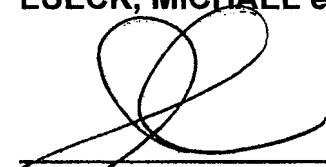
References Made of Record and Not Relied Upon

The Applicant has briefly reviewed the other references cited by the Examiner. The Applicant respectfully submits that these references do not recognize the problem solved by the present invention and do not describe or even suggest the present invention. The Applicant respectfully submits that they are not relevant to the patentability of the claims of the present invention.

In view of the foregoing, the Applicant respectfully submits that the application is now in condition for allowance. If the Examiner believes that a telephone interview would expedite allowance of the application, the Examiner is respectfully requested to contact the undersigned at (416) 364-7311.

Respectfully submitted,

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